CLAIMS

1. A method for generating a genetically-engineered *in situ* ocular cell, said method comprising contacting an ocular cell with exogeneous nucleic acid under conditions permissive for the uptake of said exogeneous nucleic acid into said ocular cell for expression therein.

2. A method according to Claim 1 wherein said exogeneous nucleic acid is in the form of a retrovirus.

3. A method according to Claim 1 wherein said exogeneous nucleic acid is in the form of an adenovirus.

4. A method according to Claim 1 wherein said exogeneous nucleic acid is in the form of a plasmid.

5. A method according to Claim 1 wherein said exogeneous nucleic acid is in the form of an adenoassociated virus.

6. A method of treating ocular disease comprising incorporating exogeneous nucleic acid into an *in situ* ocular cell under conditions permissive for the uptake of said exogeneous nucleic acid, said exogeneous nucleic acid encoding a protein associated with said ocular disease.

7. A method of treating ocular disease comprising incorporating exogeneous nucleic acid into an *in situ* ocular cell under conditions permissive for the uptake of said exogeneous nucleic acid, said exogeneous nucleic acid encoding a protein useful in the treatment of said ocular disease.

8. An ocular cell containing exogeneous nucleic acid.

9. A method according to claim 6 or 7 wherein said cell is a corneal endothelium cell.

10. A method according to claim 6 or 7 wherein said cell is a corneal epithelial cell.

11. A method according to claim 6 or 7 wherein said cell is a choroid cell.

12. A method according to claim 10 wherein said cell is debrided prior to introducing said exogeneous nucleic acid.

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